

Listing of Claims

1. (Previously amended) A method for preserving cells comprising:
 - (a) providing bone marrow stromal cells (BMSCs) which have been transfected with an exogenous gene (transfected BMSCs), the level of expression of the exogenous gene of the transfected BMSCs having a predetermined value; and
 - (b) cryopreserving the transfected BMSCs which in the thawed state have a level of expression of the exogenous gene which is at least about 77% of said predetermined value.
2. (Original) The method of Claim 1, wherein the bone marrow stromal cells are obtained from bone marrow from a vertebrate.
3. (Original) The method of Claim 1, wherein the bone marrow stromal cells are obtained from bones removed from a vertebrate.
4. (Original) The method of Claim 1, wherein the bone marrow stromal cells are mammalian.
5. (Original) The method of Claim 4, wherein the bone marrow stromal cells are human.
6. (Original) The method of Claim 4, wherein the bone marrow stromal cells are canine.

7. (Original) The method of Claim 1, wherein the exogenous gene encodes a secreted peptide.

8. (Original) The method of Claim 7, wherein the secreted peptide is a serum protein, a blood clotting factor, a cytokine, a lymphokine, a growth factor, a peptide hormone, a lipid binding protein, a metabolic enzyme, an antibacterial peptide, an antimicrobial peptide, an antifungal peptide, or a neurotransmitter.

9. (Original) The method of Claim 8, wherein the blood clotting factor is factor VIII or factor IX.

10. (Original) The method of Claim 1, wherein the exogenous gene encodes a cell surface molecule.

11. (Original) The method of Claim 10, wherein the cell surface molecule is V-CAM-1, I-CAM-1, N-CAM, or V-LAM.

Claims 12 to 20 (Cancelled)

21. (Previously added) Thawed BMSCs which have been transfected with an exogenous gene and cryopreserved, the level of expression of the exogenous gene of the thawed BMSCs being at least about 77% of the level of expression of said exogenous gene in the transfected BMSCs prior to cryopreservation.

22. (Previously added) The BMSCs of Claim 21, wherein said BMSCs are human cells.
23. (Previously added) The BMSCs of Claim 21, wherein said BMSCs are canine cells.
24. (Previously added) The BMSCs of Claim 21, wherein said exogenous gene encodes a secreted peptide.
25. (Previously added) The BMSCs of Claim 24, wherein the secreted peptide is a serum protein, a blood-clotting factor, a cytokine, a lymphokine, a growth factor, a peptide hormone, a lipid-binding protein, a metabolic enzyme, an antibacterial peptide, an antimicrobial peptide, an antifungal peptide, or a neurotransmitter.
26. (Previously added) The BMSCs of Claim 25, wherein the blood-clotting factor is Factor VIII or Factor IX.
27. (Previously added) The BMSCs of Claim 21, wherein the exogenous gene encodes a cell surface molecule.
28. (Previously added) The BMSCs of Claim 27, wherein the cell surface molecule is V-CAM-1, I-CAM-1, N-CAM, or V-LAM.
29. (Previously added) A method for preserving cells comprising:

- (a) providing BMSCs
- (b) transfecting said BMSCs with an exogenous gene (transfected BMSCs), the level of expression of the exogenous gene of the transfected BMSCs having a predetermined value; and
- (c) cryopreserving the transfected BMSCs which in the thawed state have a level of expression of the exogenous gene which is at least about 77% of said predetermined value.

30. (Previously added) The method of Claim 29, including thawing the cryopreserved transfected BMSCs.--

31. (New) A method for preserving cells comprising:

- (a) providing bone marrow stromal cells (BMSCs) which have been transfected with an exogenous gene (transfected BMSCs), the level of expression of the exogenous gene of the transfected BMSCs having a predetermined value;
- (b) washing said transfected BMSCs;
- (c) detaching said transfected BMSCs from a tissue culture dish;
- (d) suspending said transfected BMSCs in cryopreservation medium comprising:
about 10% dimethyl sulfoxide, about 1-50% fetal bovine serum, and about 89-40% Dulbecco's modified Eagles' medium;
- (e) storing the transfected BMSCs at about -80°C;

wherein said transfected BMSCs in the thawed state have a level of expression of the exogenous gene which is at least about 77% of said predetermined value.
